II. Remarks

Support for the various amendments made to the claims herein may be found throughout the application as filed. Claims 1 through 20 were previously cancelled. Claims 21-24, 27-28 and 30-48 are amended herein. New claim 50 is added herein. No new matter has been added as a result of the claim amendments. Applicants respectfully request allowance of the claims as amended herein in view of the remarks set forth below.

III. Rejections of Claims Made in the Office Action Dated March 13, 2007

In the communication from the Examiner mailed March 13, 2007, the Examiner rejected the then-pending claims on the following basis:

(1) Claims 21-49 were rejected under 35 U.S.C. Section 102(b) as being anticipated by or under 35 U.S.C. Section 103(a) as being obvious over, U.S. Patent No. 4,794,384 to Jackson.

The foregoing rejection is responded to below.

IV. Response to Rejections Made in the Office Action Mailed March 13, 2007

(1) Claims 21-49 as amended herein, and new claim 50, are neither anticipated by nor obvious in view of the Jackson Reference.

In rejecting claims 21-49 as being anticipated by or obvious over U.S. Patent No. 4,794,384 to Jackson (hereafter "the Jackson reference"), the Examiner stated:

> Claims 21-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Jackson (US 4,794,384).
>
> As to claim 34, Figs. 1 and 2 of Jackson discloses a device for determining a first distance along a movement path on a surface (14) over which an optical tracking device (optical mouse 20) is moved by a user, comprising: a coherent light source (12) configured to project a first coherent light beam along the movement path and onto the surface (14) as an incident light beam; a plurality of light sensors (detector array 16) operatively associated with the coherent light source (12) and configured to sense at least a portion of the incident light beam reflected from the surface as a second reflected light beam, and a processor (control means, Figs. 3A, 3B), wherein the coherent light source is configured to generate a plurality of light interference speckles on the surface along the movement path as a result of the first light beam and the second light beam interfering with one another (col. 2, lines 38-44, col. 3, lines 6-12 for example), the plurality of light sensors (detector array) is configured to detect the pattern along the movement path, and the processor is configured to determine the first distance on the basis of the sensed pattern (col. 2, lines 44-52 for example).
>
> As to claim 35, Jackson discloses means for determining a direction in which the optical mouse moves along the movement path on the basis of the sensed pattern (col. 2, lines 53-65).
> As to claim 36, Jackson teaches comparing means (col. 2, lines 50-52).
>
> As to claims 37, 38, Jackson teaches the detector detecting at least one characteristic of the speckles (col. 4, line 63 to col. 5, line 38).

> As to claim 39, Fig. 2 of Jackson teaches the coherent light source and the sensors are configured such that dimensions corresponding to the interference pattem speckles as claimed.
>
> As to claim 40, Jackson teaches the average speckle size is approximately given by the equation (col. 5, lines 1-17).
>
> As to claims 42, 43, Jackson does not disclose the average speckle size is between 50-100 microns, or is approximately 10 microns. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Jackson to have the average speckle size as claimed, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ215 (CCPA 1980).
>
> As to claim 41, Jackson teaches counting thee number of speckles along the optical path to determine the first distance (Fig. 4 and col. 8, line 58 to col. 9, line 21).
>
> As to claims 44-48, Jackson teaches means for generating at least one of a high signal and a low signal in response to least one or some of the plurality of sensors detecting a speckle (col. 7, line 53 to col. 8, line 2 for example).
>
> As to claim 49, Jackson teaches the device is a mouse.
>
> Claims 21-33, which arc method claims corresponding to the above apparatus claims, arc rejected for the same reasons as stated above since such method "steps" are clearly read on by the corresponding "means".

Reference to the Jackson reference shows that it discloses "[a]n optical translator device capable of providing information indicative of the amount and direction of relative movement between the device and a surface positioned relative thereto. The device comprises a light source for providing at least partially coherent radiation and the source radiation is directed toward an area of the surface area. The reflected coherent radiation or light at the surface area undergoes optical interference due to the texture of the surface thereby forming a speckle pattern consisting of light and dark features. A detector array at the device comprises a plurality of photodetector cells and positioned in the path to receive the reflected light and to detect the light and dark

features as represented by the cells in the array detecting light features in the reflected light thereby representative of a sample of the speckle pattern. ***Means is [sic] provided to compare consecutively produced samples which are indicative of the translatory information.*** A particular application of the optical translator device is a novel optical cursor control device which derives its translatory information from movement on substantially any sufficiently reflective surface. ***The output of the detector array is provided to circuit means to produce signals indicative of the amount and direction of relative cursor control device movement over the surface based upon observation of changes and movement of the speckle pattern as presented to the detector array.*** Such a device can be characterized as a "padless optical mouse" to provide orthogonal signals to move a cursor from position to position on a display screen in response to movement of the mouse over any sufficiently reflective surface, such as a desk top." See the Abstract of the Jackson reference, and Figs. 1, 2, 3B and 4 thereof reproduced hereinbelow.

Portions of the Jackson reference cited by the Examiner, and other pertinent portions of the Jackson reference, include the following:

> According to this invention, an optical translator device capable of providing information indicative of the amount and direction of relative movement between the device and a surface positioned relative thereto. The device comprises a light source for providing at least partially coherent radiation and the source radiation is directed toward an area of the surface area. The reflected coherent radiation or light at the surface area undergoes optical interference due to the texture of the surface thereby forming a speckle pattern consisting of light and dark features. A detector array at the device comprises a plurality of photodetector cells and positioned in the path to receive the reflected light and to detect the light and dark features as represented by the cells in the array detecting light features in the reflected light thereby representative of a sample of

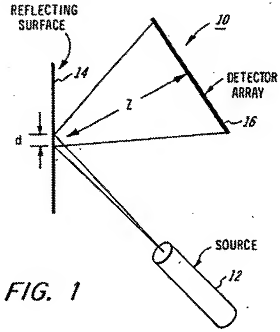

FIG. 1

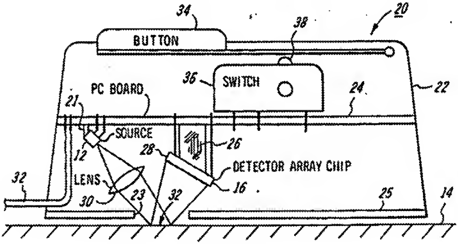

FIG. 2

Figs. 1 and 2 of the Jackson Reference

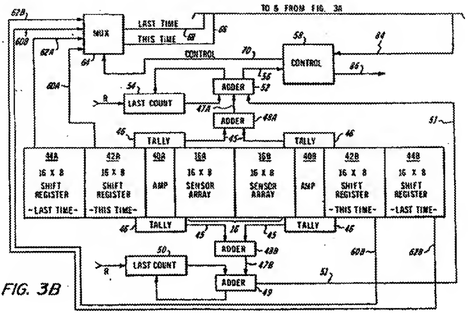

FIG. 3B

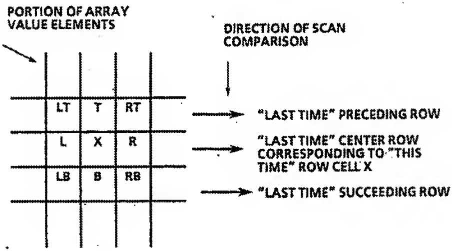

FIG. 4

Figs. 3B and 4 of the Jackson Reference

the speckle pattern. ***Means is [sic] provided to compare consecutively produced samples which are indicative of the translatory information.***

A particular application of the optical translator device is a novel optical cursor control device which derives its translatory information from movement on substantially any sufficiently reflective surface. Changes in the speckle pattern of back scattered coherent light, provided by a coherent light source in the cursor control device, reflected from such a surface is detected by an array of photodetectors. ***The output of the detector array is provided to circuit means to produce signals indicative of the amount and direction of relative cursor control device movement over the surface based upon observation of changes and movement of the speckle pattern as presented to the detector array.*** Such a device can be characterized as a "padless optical mouse" to provide orthogonal signals to move a cursor from position to position on a display screen in response to movement of the mouse over any sufficiently reflective surface, such as a desk top. Thus, special contrasting markings or special patterns are not necessary as in the case of previously known optical mice.

As previously indicated, the radiation from the source at the cursor control device is directed toward an area of the surface wherein a portion of the light is reflected from the surface area to a detector array. The reflected coherent radiation or light undergoes optical interference due to the texture or irregularity of the surface thereby forming a speckle pattern comprising light and dark features. ***The detector array comprises a plurality of photodetector elements or cells that are permitted to detect light features of the pattern within a dynamically determined period of time. The read out of the detected values from the array is a representation of a sample of the speckle pattern. Comparison of a prepared and valid sample with a previously determined valid sample provides data indicative of the amount and direction of such relative movement of the device over the surface. Comparison and movemental signal development are provided by circuit means coupled to the detector array. The circuit means also provides a determination of the number of detector cells in the array that have detected light features and compares these numbers with a***

***predetermined value indicative of whether the sample is a good representation of the speckle pattern before being declared as an acceptable or valid sample.** Col. 2, line 34 through col. 3, line 29 of U.S. Patent No. 4,794,384 to Jackson.*

The relationship of the size of the speckle features and their contrast ratio relative to the size of the detector cells in the array 16 depends upon several factors including the roughness or minute irregularity of surface 14 and the extent of coherence of source 12. The speckle pattern features are larger than the size of the individual detector cells. Minimum speckle size at detector array 16 is determined by the formula:

$$\text{alpha} = (2 \times \text{lambda} \times Z)/d$$

where alpha is the minimum speckle size, lambda. is the wavelength of coherent light of source 12, Z is the distance from reflecting surface 14 to detector array 16 and d is the diameter of the illuminated spot at surface 14. Speckle size should be sufficiently large so as to provide a detectable speckle pattern within the framework of the dimensions of the detector array 16. Required minimum speckle feature size can be accomplished by making the size of the illuminated spot on surface 14 smaller or by making the distance Z larger. The average speckle feature size is generally a little larger than this minimum value.

The contrast ratio is an indication of the contrast between light and dark speckle features which is important since the job of the detector array 16 is detecting moving edges created between these two types of features. The contrast ratio is determined by:

$$C = (I_{max} - I_{min})/(I_{max} + I_{min})$$

where C is the contrast ratio, Imax is the maximum intensity at the array and Imin is the minimum intensity at the array.

The contrast ratio will vary according to the coherency of source 12 and the irregularity features of surface 14. The more coherent the source 12, the higher the contrast.

In practice, the surface 14 most likely will be a desk surface which will produce a good speckle pattern. By monitoring the amount of light reflected from surface 14, different levels of reflected intensity can be compensated for at the detector array. *Col. 4, line 63 through col. 5, line 38 of U.S. Patent No. 4,794,384 to Jackson.*

In use, the mouse 20 is moved over surface 14. The light source 12 in mouse 20 illuminates a portion 32 of surface 14 as the mouse is moved over its surface. The light and dark features of the reflected speckle pattern illuminate the surface of detector array 16. ***As the mouse 20 is moved across surface 14, the speckle pattern, characteristic of source 12, moves with it. By making an intensity trace across the speckle pattern with the detector array 16 and correlating it with a trace taken just prior thereto, the relative motion between the two traces can be determined as well as the direction of its movement.***

Two linear arrays of detectors on a single chip may be used or a two dimensional array on a single chip may be used. Examples of detector arrays are charge couple devices (CCD) or a plurality of silicon photodetector cells.

An important aspect is the width of the sample window for the detector array. The sample time must be constant for repeated samples of a speckle intensity pattern having substantially the same contrast ratio in order to provide useful information relative to motion and direction. It is important the time of sample be adjustable. If the time of sample is not adjustable, then the cursor control will be constrained to operate only with reflecting surfaces that provide sufficient photon flux to affect the detector cells during the sample window. However, the sample window must not be so long as to saturate all the detector cells. Therefore, for the detector array to work effectively with surfaces of widely varying reflectivity levels, the sample window of the array must be adjustable to compensate for differences in surface reflectivity levels.

Since the speckle pattern being sampled can, in a sense, be thought as composed of equal mixtures of light and dark features, the sample window can be determined complete when the accumulated photocurrent for half of the detector cells have exceeded a predetermined threshold. ***This dynamically determined threshold technique will provide a fairly constant sampling window which will automatically change when the reflectivity of the surface being observed changes.***

FIGS. 3A and 3B discloses circuit means for carrying out the sample window strategy and motion determination of this invention. For FIG. 3B, detector array 16 is a sixteen by sixteen square array of 256 detector cells. The time to take a total sample must be as short as possible in order to have a practical sampling rate useful for motion detection as a cursor control device. If the sampling window is short in time compared to the time it takes light to discharge the charge present on the nodes of the detector cells, then the total sample acquired during the sample window will be a reasonable representation of the speckle pattern incident on the detector cells. *Col. 5, line 64 through col. 6, line 51 of U.S. Patent No. 4,794,384 to Jackson*

The grand total value is compared to the binary number 128 representing one half of the detector cells of array 16. This value may be chosen to more or less than half the number of cells in the array. The idea is to obtain a sufficient representation of distinguishable features from the instantaneous speckle pattern that will be useful as a representation of that pattern for comparison with later determined valid sampled patterns. In any case, if the grand total value is equal to or greater than the binary value of 128, then the current sample is deemed valid and is indicated as such by high or "1" on line 56 from adder 52 to control circuit 58 and the values in the array sampled may then be shifted out in parallel groups of sixteen bit values into shift registers 42A and 42B. On the other hand, if the number is less than the binary value of 128, then this particular tallied sample is discarded and another tally is taken from array 16 of the pattern received from the reflecting surface 14.

If a tallied sample is determined to be valid sample in this manner and is shifted out in rows of sixteen parallel cell values with half to shift register 42A and the other half to shift register 42B, the content of values for a previously determined valid sample still present in shift registers 42A and 42B are respectively shifted out in rows of sixteen parallel cell values into shift registers 44A and 44B. In this manner, the values in shift registers 42A and 42B represent the most recent or instant valid sample, termed THIS TIME, and the values in shift registers 44A and 44B represent the immediately past or last valid sample, termed LAST TIME.

Thus, the amplified values or bits are then shifted out in 16 parallel values to 16 by 8 THIS TIME shift registers 42A and 42B until all sixteen cell lines of each subarrays 16A and 16B have been readout and their values stored in THIS TIME registers 42A and 42B. By the same token, the values for a previous valid sample, present in THIS TIME registers 42A and 42B, are shifted out of these registers in parallel into 16 by 8 LAST TIME shift registers 44A and 44B. The sequential shifting of sixteen parallel bit values from subarrays 16A and 16B as well as from THIS TIME registers 42A and 42B to LAST TIME shift registers 44A and 44B is accomplished simultaneously in eight clock periods.

With valid samples achieved, a determination can now be made as to the relative differences or changes between the detected THIS TIME pattern as compared to the detected LAST TIME pattern. The correlation of THIS TIME and LAST TIME data is accomplished by the circuit complex 72 shown in FIG. 3B. The rows of sixteen parallel cell values in registers 42A, 42B and 44A, 44B are sequentially provided, in serial fashion, on lines 60A, 60B, 62A and 62B to multiplexer 64 wherein the values for rows of 16 parallel bits from THIS TIME shift registers 42A and 42B and comparable rows of 16 parallel bits from LAST TIME shift registers 44A and 44B are multiplexed to produce sequentially sixteen serial bit line values respectively for THIS TIME data and LAST TIME data. This data is clocked from multiplexer 64 respectively along THIS TIME line 66 and LAST TIME line 68. The control signals to operate multiplexer 64 are received along control bus 70 from control 58. The main task of control signals on bus 70 is to switch input line pairs 60A and 62A; 60B and 62B to multiplexer 64 from one set of lines to another for bitwise correlation by

circuit 72 in a manner as next explained below.

Bitwise autocorrelation embraces the concept of comparing a given bit value for each of the 256 cells in the array with the bit value of neighboring cells surrounding the given cell to determine how many such comparisons are the same and then a count is kept of the number of such comparisons for different groups of identical cell pair comparison.

As illustrated in FIG. 4, there are eight surrounding neighbors for each given cell X, not counting edge cells of the array. These positions are top (T), left top (LT), left (L), left bottom (LB), bottom (B), right bottom (RB), right (R) and right top (RT). ***For each cell in the array, a comparison for identical values is made relative to each of those eight adjacent cell positions and the tally of those eight comparisons for each cell position in the array is maintained in a respective counter until the process is complete for an entire sample comparison. This requires eight counters for each of the eight cell pair comparisons to be accomplished. Upon sample completion, the highest value in any one of the eight counters is subtracted from the next highest count value in any one of the eight counters. If the difference is more than a predetermined threshold, then the counter with the highest count is a valid indication of pattern movement with the direction of movement being represented by the counter with the highest number. However, if the highest number and the next highest number in such a sample comparison are the same or are below the predetermined threshold, this is a valid indication of no pattern movement.*** For example, in FIG. 4, if the count for RT comparisons with X throughout the array is higher than any other such comparison count and the difference between its value and the second highest of such count comparisons for all cells throughout the array exceeds a predetermined threshold, then a valid determination has been made that movement from a LAST TIME pattern to a THIS TIME pattern has been in the direction of X.fwdarw.RT, i.e., in a compassable direction described as from southwest to northeast.

The above described system is, therefore, based upon a preponderance of "votes" determining a direction of movement. ***The system utilizes the concept of comparing neighboring values from a previous sample with each array cell value in a new sample to determine if they are the same. If any of the eight comparisons provide an indication of being the same, whether a dark feature or a light feature, then there is a possibility that the pattern feature being detected has "moved" to new cell position.*** An identical cell pair value counts as one point and the appropriate counter representing that pair comparison is incremented. It can be seen, then, that if the preponderance is that a certain majority of light features detected in the speckle pattern presented to the array have moved in a given direction and also a certain majority of dark features have moved in the same given direction, a reliable indication has been derived that the relative motion between the array 16 and the reflecting surface 14 is in the given direction.

The reliability of this correlation method is based upon not only the preponderance of the "votes" but also due to (1) a cancelling effect which is obtained when the total count for equal and opposite comparisons are the same, or nearly the same, so that no weight can be given for movement in that direction, and (2) an elimination of the effect of the disappearance or diminishing of intensity features in the speckle pattern and their subsequent return which is accomplished by comparing the difference between the highest count value obtained upon complete sample comparison which is subtracted from the next highest count value obtained from the sample comparison and determining that the difference is above a predetermined threshold. The threshold value is a number value which is a measure of the confidence that the pattern has moved in the direction indicated by the counter having the highest indicated value. This value may be sufficiently high to provide a reliable level of confidence regardless of the system "noise" due, for example, to thermal and analog processes. *Col. 7, line 53 through col. 9, line 61 of U.S. Patent No. 4,794,384 to Jackson*

Reference to the above-cited portions and figures of the Jackson reference shows that Jackson et al. disclose a rather elaborate and computationally intensive optical mouse tracking system relies upon the acquisition and subsequent processing of large amounts of data from large areal arrays of photosensors as a mouse is moved over a surface and light speckles are generated thereon. These large arrays of photosensors send signals representative of the amount of light being sensed by each of the various photosensors in the array at a given moment in time. The array values corresponding to that snapshot in time are stored in a shift register for comparison to array values corresponding an earlier or later snapshot in time. Patterns present in the respective arrays are determined using computationally intensive two-dimensional autocorrelation techniques, and then compared to one another to determine the direction and amount of movement that has occurred in respect of the two snapshots in time.

Nowhere does the Jackson reference disclose, discuss, hint at or suggest sensing the rising and falling edges of light speckles using relatively small areal arrays of photosensors or photodetectors, and then, in a processor, comparing such rising and falling edges, and the high and low states that lie between such rising and falling edges, in a as a means of determining direction and magnitude of movement of a mouse over a surface. The computational techniques employed in the presently-claimed invention are far less computationally intensive than those required by the navigation processing techniques described in the Jackson reference. In the present invention, only simple comparisons of a limited number of voltages or values to one another are required. In contrast, Jackson requires extensive number-crunching using sophisticated two-dimensional autocorrelation techniques. Moreover, the computational techniques described in Jackson require the use of

much larger arrays of sensors than those required in the presently-claimed invention.

Reference to claims 21-49 as amended herein, and new claim 50, will show that those claims contain limitations disclosed nowhere in the cited Jackson reference.

More particularly, reference to claims 21-49 as amended herein, and new claim 50, shows that all the following elements and limitations are required by each such claim:

(a) A method for determining a first distance along a movement path on a surface over which an optical tracking device is moved by a user, comprising:

(b) projecting, from a coherent light source, and along the movement path, a beam of coherent light as a first light beam incident on the surface;

(c) generating, on the surface and along the movement path, a plurality of light interference speckles resulting from the first light beam and a second light beam representing at least portions of the first light beam reflected from the surface interfering with one another,

(d) the speckles having at least a first average spatial dimension;

(e) sensing the plurality of speckles with a plurality of light sensors arranged in an areal pattern as the optical tracking device is moved along the movement path;

(f) each of the light sensors having a second spatial dimension that is less than the first average spatial dimension of the speckles;

(g) each of the light sensors further being configured to generate a first signal when one of the plurality of speckles is disposed therebeneath and detected thereby;

(h) and to generate a second signal when one of the plurality of speckles is disposed therebeneath and not detected thereby, and

(i) determining, on the basis of the plurality of first and second signals the first distance.

A rejection based on anticipation under 35 U.S.C. §102 requires that all elements recited in the rejected claims be found within the four corners of the cited reference. Claims 21-49 as amended herein, and new claim 50, require all of elements (a) through (i) set forth above. Referring to the Jackson reference and the portions thereof set forth above, it becomes clear that Jackson discloses none of, nor hints at or suggests any of, elements (d), (f), (g), (h) or (i), recited in now-pending claims 21-50. In other words, at least five separate and interconnected elements now recited in claims 21-50 are nowhere to be found in the Jackson reference. Thus, it will now be seen that a rejection of claims 21-50 as amended herein as being anticipated by the Jackson reference would be erroneous because those claims include many elements and limitations disclosed and taught nowhere, and suggested nowhere, in the cited Jackson reference.

The Applicants have discovered that a certain novel combination of light projection, light interference, light sensor, and processing components and techniques arranged in a certain order and operated in a certain manner are required to produce the beneficial effects of the present invention. Those elements and arrangements are neither disclosed nor suggested anywhere in the Jackson reference, and accordingly cannot be *prima facie* obvious.

Merely asserting that "would be obvious to try" the invention by making reference to the large sensor arrays and computationally intensive autocorrelation, pattern recognition, and pattern comparison techniques of Jackson, while essentially creating other features out of whole cloth without referring to any specific portions of the cited references to establish a motivation for combining elements or functionality disclosed therein, would not establish a *prima facie* case of obviousness. In going from the prior art to the claimed invention, one cannot base obviousness on what a person skilled in the art might try or find obvious to *try*, but rather must consider what the prior art would have lead a person skilled in the art to *do*.

There is no incentive, teaching or suggestion in the Jackson reference to produce the invention now recited in claims 21-50. The mere fact that the cited Jackson reference could, with the benefit of hindsight, produce something vaguely similar to the present invention does not make the modification obvious, or suggest the desirability of the modification required to arrive at the present invention. Indeed, there is no combination of elements disclosed in the Jackson reference that could produce the inventions now recited in claims 21-50 because at least five elements recited in those claims are missing from the Jackson reference.

In such a context, it is noteworthy that the cited Jackson reference discloses nothing concerning some of problems solved by the

present invention. For example, nowhere do the Jackson reference disclose or discuss the problems associated with employing large sensor arrays, or computationally intensive autocorrelation, pattern recognition, and pattern comparison data processing techniques.

There is no suggestion of what direction any experimentation should follow in the Jackson reference to obtain the invention now recited in claims 21-50. Accordingly, the result effective variables, for example analyzing the rising and falling edges, and the high and low states disposed therebetween, of substantially binary signals provided by a small number of sensors disposed in a small areal array to determine mouse direction and magnitude of travel, are not known to be result effective. Thousands or millions of attempts at variations might be made before arriving at the desired improvement. Thus, to say that it would be obvious to read the Jackson reference and somehow arrive at the invention now recited in claims 21-50 would clearly not be the test for obviousness.

The foregoing analysis also makes it clear that there is no basis in the art for modifying the Jackson reference to arrive at the invention now recited in claims 21-50. Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. As pointed out in detail above, the Jackson reference does not teach the problems associated with, or the sources of such problems, respecting the use of a small number of sensors in combination with simple computational techniques to determine mouse direction and movement magnitude. When, as here, the prior art itself provides no apparent reason for one of ordinary skill in the art to make a modification or to combine references, an argument clearly does not exist that the claimed subject matter would have been obvious. Thus, an attempt to use the applicants' own disclosure as a blueprint to

reconstruct in hindsight the invention now recited in claims 21-50 out of isolated teachings appearing in the prior art would clearly be improper.

The results and advantages produced by the invention set forth in the claims as amended herein and of which the Jackson reference are devoid, cannot be ignored simply because the claim limitations might be deemed similar to the otherwise barren prior art.

Finally, the foregoing analysis also makes it clear that many limitations now appearing in claims 21-50 are simply not present in the Jackson reference. In fact, and as shown above, at least five such interconnected elements and limitations now recited in claims 21-50 are nowhere to be found in the Jackson reference. When evaluating a claim for determining obviousness, *all* limitations of the claim must be evaluated. Under §103, the Examiner cannot in turn dissect each of claims 21-50 as presented herein, excise the various individual elements recited in each claim, and then declare the remaining portions of the mutilated claims to be unpatentable. The Examiner must follow the basic rule of claim interpretation of reading the claims as a whole. Accordingly, the Jackson reference may not properly be used as a basis for rejecting claims 21-50 as presented herein under §103.

V. Summary

Claims 21 through 50 are pending in the application, and are believed to be in condition for allowance. Examination of the application as amended is requested. The Examiner is respectfully requested to contact the undersigned by telephone or e-mail with any questions or comments she may have.

Respectfully submitted,
Dale W. Schroeder et al.
By their attorney

Thomas F. Woods

Thomas F. Woods
Registration No. 36,726

Date: 6-14-07

Woods Patent Law
P.O. Box 2528
Lyons, Colorado 80540-2528
Tel: (303) 823-6560
Fax: (303) 823-6594
E-mail: tom@woodspatentlaw.com